

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
23 June 2005 (23.06.2005)

PCT

(10) International Publication Number  
**WO 2005/057223 A2**

(51) International Patent Classification<sup>7</sup>: **G01N 33/68**

(21) International Application Number:  
PCT/US2004/040547

(22) International Filing Date: 6 December 2004 (06.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/526,930 4 December 2003 (04.12.2003) US

(71) Applicant (for all designated States except US): **APPLIED RESEARCH SYSTEMS ARS HOLDING N.V.** [NL/NL]; Pietermaai 15, Curacao (AN).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ANDREEV, Julian** [US/US]; 80 Old Stone Way, Apt. 305, Weymouth, MA 02189 (US). **HEALEY, Brian** [US/US]; 137 Old Forge Road, Scituate, MA 02066 (US). **BLUME-JENSEN, Peter** [DK/US]; 18 Peters Street, Cambridge, MA 02319 (US). **ARKINSTALL, Stephen, J.** [GB/US]; 31 Marsh Street, Belmont, MA 02478 (US). **DONG, Rong** [CA/US]; 2 Hilltop Rd., Wellesley, MA 02482 (US).

(74) Agents: **NEVILLE, Katherine, L.** et al.; Marshall, Gerstein & Borun LLP, 6300 Sears Tower, 233 South Wacker Drive, Chicago, IL 60606 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AI, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **METHODS FOR IDENTIFYING MODULATORS OF ACTIVE KIT TYROSINE KINASE RECEPTOR**

(57) Abstract: The present invention relates to cell-based assays useful for screening for modulators, such as inhibitors, of activated mutant KIT tyrosine kinase receptors, which are associated with mast cell-related disorders, such as mastocytosis and various types of cancer. The invention further provides for the treatment of mast cell-related disorders with an inhibitor identified by the screening method.

WO 2005/057223 A2